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09/741,684

12/18/2000

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2855/29

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03/23/2009

EXAMINER

MILLER, BRIAN E

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 09/741,684 | Applicant(s) WONG ET AL. | |
| | Examiner BRIAN E. MILLER | Art Unit 2627 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 December 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Claims 19-24 remain pending.

Drawings

1. The drawings are objected to because Figure 1 lacks proper labeling. The Figure should be labeled as Figure 1A, 1B, and 1C, since there is multiple views. Changes reflecting this should also be made in the specification under the "Brief Description of the Drawings" heading as well. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. Claims 19-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not

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described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. (a) Claim 19, line 10, the language “and extend *along* the lateral edges of a *slider*” suggests that the traces actually are *on* the lateral edges of the slider, however the drawings, e.g., Figure 1, does not actually show that the traces are *on* the slider itself. There is absolutely no disclosure regarding this feature either, so it is difficult to ascertain from the limited drawing figure.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 19-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 19, last three lines, the phrase “and further wherein a plurality...to the suspension,” is considered indefinite for various reasons. (a) The phrase “and extend along the outer edges of a slider” lacks proper antecedent basis. It is not readily apparent what edges applicant is referring to nor if applicant is referring to a different slider than the one previously recited in line 8 of the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 19-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Albrecht et al (US 5,821,494). (as per claim 19) Albrecht et al discloses a suspension as shown in at least FIG. 3, and FIGs. 12A-12C) which includes: a suspension 44 with a metal suspension bonding pad 64 for bonding to a magnetic head terminal with a slider bonding pad 62, which includes a bonding substance 122/60 which is a conductive adhesive solder film polymer (see col. 11, lines 16-25 and re claims 20-23), applied as a surface finishing material, which material is heat treated "prior to bonding to a surface" (see col. 10, lines 50-53 & FIG. 10B). Additionally, as shown in FIG. 12A the slider bonding pad 62 is "initially without bonding substance" and subsequently is electrically bonded to a suspension bonding pad 64 when the bonding substance 60 is reflowed (see FIG. 12C and col. 10, lines 35-53).

Further, with respect to the language "wherein the slider bonding pad...with heat treatment," it is understood and well known in the art, that heat treatment will allow a solder connection to melt and permit disconnection of an electrical connection. It is also noted, that this process limitation has not been given any patentable weight (see also Board Decision of 6/13/08 for more details).

Albrecht et al further is considered to show (see FIGs. 21A, 21B, 21C and col. 9, lines 10-53) a plurality of traces 74A extending longitudinally along generally the center of the suspension 44, and along the lateral edges of the slider 42 to the trailing edge of the slider and electrically couple the traces with the magnetic head 40, as known in the art.

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Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Albrecht et al or Ainslie et al. For a description of Albrecht et al, see the separate rejection, supra.

Albrecht et al remains expressly silent as to the dimensions, i.e., height and diameter, of the solder bump, however, Albrecht does teach the slider pads to be no larger than 120 um (see col. 11, lines 19-20) which size slider pad would presumably encompass a solder bump having a diameter equal to or approximate to that dimension. Taking this and the knowledge of a skilled artisan into consideration it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided solder bumps within the claimed dimensions to the teachings of Albrecht et al. The motivation would have been: lacking any unobvious or unexpected results, the particular solder bump height and diameter would have been provided through routine experimentation and optimization so as to optimize the electrical connection with minimal height usage, which would have been realized by a skilled artisan.

Moreover, absent a showing of criticality, the relationship set forth in claim 24 is considered to be within the level of ordinary skill in the art. The law is replete with cases in which the mere difference between the claimed invention and the prior art is some range, variable or other dimensional limitation within the claims, patentability cannot be found.

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It furthermore has been held in such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range(s); see *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Moreover, the instant disclosure does not set forth evidence ascribing unexpected results due to the claimed dimensions; see *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338 (Fed. Cir. 1984), which held that the dimensional limitations failed to point out a feature which performed and operated any differently from the prior art.

Response to Arguments

9. Applicant's arguments filed 12/03/08 have been fully considered but they are not persuasive.

A...Applicant submits that the amendments to the claim(s), e.g., claim 19, obviates the 112 first and second paragraph rejections.

While applicant has addressed some of the Examiner's concerns with respect to 35 U.S.C. § 112, some remain, and the newly added language has prompted a revised 112 first paragraph rejection concerning new matter.

B...Applicants further submit that "none of the cited Figures teach or suggest a [sic] suspension embodiment wherein a plurality of traces extend longitudinally generally along the center of a suspension and extend along the lateral edges of a trailing edge of the slider (as described in claim 19)."

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The Examiner respectfully disagrees. The Examiner maintains that the reference to Albrecht is considered to show this aforementioned feature. As discussed above, Albrecht et al is considered to show (see FIGs. 21A, 21B, 21C and col. 9, lines 10-53) a plurality of traces 74A extending longitudinally along generally the center of the suspension 44, and along the lateral edges of the slider 42 to the trailing edge of the slider, as required by the claims.

C...With respect to claims 20-24, Applicant has not identified specific reasoning in which the cited references fail to show these limitations. Failure to do so amounts to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references and thus applicant's arguments fail to comply with 37 CFR 1.111(b). Because no remarks have been made, the rejection is considered proper and is maintained.

D...The arguments with respect to Ainslie et al. are considered moot, as the Examiner does not rely on this reference to show any of the claimed limitations.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN E. MILLER whose telephone number is (571)272-7578. The examiner can normally be reached on M-TH 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

***/Brian E. Miller/
Primary Examiner, Art Unit 2627***

BEM
March 18, 2009